Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended)   An envelope generator, comprising:

an input terminal for having a signal inputted therein;

a first integrator for generating intermediate state of envelopes with a first attack time and a first release time in response to changes in level of said signal inputted through said input terminal to impart said intermediate state of envelopes to said signal;

a second integrator for respectively modifying said intermediate state of envelopes into final state of envelopes with a second attack time and a second release time in response to changes in level of said signal outputted from said first integrator to impart said final state of envelopes to said signal;

a time constant distributor for receiving a desired release coefficient to distribute a first release coefficient to said first integrator and a second release coefficient to said second integrator, said first release coefficient corresponding to said first releasing time of said first integrator, said second release coefficient corresponding to said second releasing time of said second integrator; and

an output terminal for outputting said signal with said final state of envelopes therethrough, wherein

said first attack time is equal to zero,

said second attack time is equal corresponds to a desired attack time coefficient, and

the sum of said first release time coefficient to be distributed to said first integrator and said second release time coefficient to be distributed to said second integrator is equal to said desired release time coefficient.

2. (Currently amended)   An audio compression apparatus, comprising:

an input terminal for having an audio signal inputted therein;

a sampling element for periodically sampling said audio signal to obtain an absolute value in level of said audio signal;

a subtracter for acquiring a difference between said absolute value and a predetermined threshold value;

a gain generator for generating a gain signal based on said difference between said absolute value and said predetermined threshold value;

an envelope generator including a first integrator for generating intermediate state of envelopes with a first attack time and a first release time in response to changes in level of said gain signal to impart said intermediate state of envelopes to said gain signal, and a second integrator for respectively modifying said intermediate state of envelopes into final state of envelopes with a second attack time and a second release time in response to changes in level of said gain signal outputted from said first integrator to impart said final state of envelopes to said gain signal, a time constant distributor for receiving a desired release coefficient to distribute a first release coefficient to said first integrator and a second release coefficient to said second integrator, said first release coefficient corresponding to said first releasing time of said first integrator, said second release coefficient corresponding to said second releasing time of said second integrator;

a multiplier for multiplying said audio signal by said gain signal with said final state of envelopes; and

an output terminal for outputting said audio signal multiplied by said gain signal therethrough, wherein

said first attack time is equal to zero,

said second attack time is equal corresponds to a desired attack time coefficient, and

the sum of said first release time coefficient to be distributed to said first integrator and said second release time coefficient to be distributed to said second integrator is equal to said desired release time coefficient.

3. (Currently amended)   An audio expansion apparatus, comprising:

an input terminal for having an audio signal inputted therein;

a sampling element for periodically sampling said audio signal to obtain an absolute value in level of said audio signal;

a subtracter for acquiring a difference between said absolute value and a predetermined threshold value;

a gain generator for generating a gain signal based on said difference between said absolute value and said predetermined threshold value;

an envelope generator including a first integrator for generating intermediate

state of envelopes with a first attack time and a first release time in response to changes in level of said gain signal to impart said intermediate state of envelopes to said gain signal, and a second integrator for respectively modifying said intermediate state of envelopes into final state of envelopes with a second attack time and a second release time in response to changes in level of said gain signal outputted from said first integrator to impart said final state of envelopes to said gain signal, a time constant distributor for receiving a desired release coefficient to distribute a first release coefficient to said first integrator and a second release coefficient to said second integrator, said first release coefficient corresponding to said first releasing time of said first integrator, said second release coefficient corresponding to said second releasing time of said second integrator;

a multiplier for multiplying said audio signal by said gain signal with said final state of envelopes; and

an output terminal for outputting said audio signal multiplied by said gain signal therethrough, wherein

said first attack time is equal to zero,

said second attack time is equal corresponds to a desired attack time coefficient, and

the sum of said first release time coefficient to be distributed to said first integrator and said second release time coefficient to be distributed to said second integrator is equal to said desired release time coefficient.

4. (Currently amended) An envelope generation method, comprising:

a first step of having a signal inputted;

a second step of generating intermediate state of envelopes with a first attack time and a first release time in response to changes in level of said signal inputted in said first step to impart said intermediate state of envelopes to said signal;

a third step of respectively modifying said intermediate state of envelopes into final state of envelopes with a second attack time and a second release time in response to changes in level of said signal outputted in said second step to impart said final state of envelopes to said signal; and

a fourth step of outputting said signal with said final state of envelopes; and

a fifth step of receiving a desired release coefficient to distribute a first release coefficient and a second release coefficient, said first release coefficient corresponding to said first releasing time, said second release coefficient corresponding to said second releasing time, wherein

4

said first attack time is equal to zero,

said second attack time is equal corresponds to a desired attack time coefficient, and

the sum of said first release time coefficient to be distributed and said second release time coefficient to be distributed is equal to said desired release time coefficient.

5. (Currently amended) An audio compression method, comprising:

a first step of having an audio signal inputted;

a second step of periodically sampling said audio signal to obtain an absolute value in level of said audio signal;

a third step of acquiring a difference between said absolute value and a predetermined threshold value;

a fourth step of generating a gain signal based on said difference between said absolute value and said predetermined threshold value;

a fifth step of generating intermediate state of envelopes with a first attack time and a first release time in response to changes in level of said gain signal to impart said intermediate state of envelopes to said gain signal;

a sixth step of modifying said intermediate state of envelopes into final state of envelopes with a second attack time and a second release time in response to changes in level of said gain signal outputted in said fifth step to impart said final state of envelopes to said gain signal;

a seventh step of multiplying said audio signal by said gain signal with said final state of envelopes; and

an eighth step of outputting said audio signal multiplied by said gain signal; and

a ninth step of receiving a desired release coefficient to distribute a first release coefficient and a second release coefficient, said first release coefficient corresponding to said first releasing time, said second release coefficient corresponding to said second releasing time, wherein

said first attack time is equal to zero,

said second attack time is equal corresponds to a desired attack time coefficient, and

the sum of said first release time coefficient to be distributed and said second release time coefficient to be distributed is equal to said desired release time coefficient.

6. (Currently amended)   An audio expansion method, comprising:

a first step of having an audio signal inputted;

a second step of periodically sampling said audio signal to obtain an absolute value in level of said audio signal;

a third step of acquiring a difference between said absolute value and a predetermined threshold value;

a fourth step of generating a gain signal based on said difference between said absolute value and said predetermined threshold value;

a fifth step of generating intermediate state of envelopes with a first attack time and a first release time in response to changes in level of said gain signal to impart said intermediate state of envelopes to said gain signal;

a sixth step of modifying said intermediate state of envelopes into final state of envelopes with a second attack time and a second release time in response to changes in level of said gain signal outputted in said sixth step to impart said final state of envelopes to said gain signal;

a seventh step of multiplying said audio signal by said gain signal with said final state of envelopes; and

an eighth step of outputting said audio signal multiplied by said gain signal; and

a ninth step of receiving a desired release coefficient to distribute a first release coefficient and a second release coefficient, said first release coefficient corresponding to said first releasing time, said second release coefficient corresponding to said second releasing time, wherein

said first attack time is equal to zero,

said second attack time is equal corresponds to a desired attack time coefficient, and

the sum of said first release time coefficient to be distributed and said second release time coefficient to be distributed is equal to said desired release time coefficient.

7. (Currently amended)   A recordable medium having stored thereon information on an envelope generation program having a computer perform an envelope generation, said envelope generation program comprising:

a first step of having a signal inputted;

a second step of generating intermediate state of envelopes with a first attack

6

time and a first release time in response to changes in level of said signal inputted in said first step to impart said intermediate state of envelopes to said signal;

a third step of respectively modifying said intermediate state of envelopes into final state of envelopes with a second attack time and a second release time in response to changes in level of said signal outputted in said second step to impart said final state of envelopes to said signal; and

a fourth step of outputting said signal with said final state of envelopes; and

a fifth step of receiving a desired release coefficient to distribute a first release coefficient and a second release coefficient, said first release coefficient corresponding to said first releasing time, said second release coefficient corresponding to said second releasing time, wherein

said first attack time is equal to zero,

said second attack time is equal corresponds to a desired attack time coefficient, and

the sum of said first release time coefficient to be distributed and said second release time coefficient to be distributed is equal to said desired release time coefficient.

8. (Currently amended) A recordable medium having stored thereon information on an audio compression program having a computer perform a compression of an audio signal, said audio compression program comprising:

a first step of having an audio signal inputted;

a second step of periodically sampling said audio signal to obtain an absolute value in level of said audio signal;

a third step of acquiring a difference between said absolute value and a predetermined threshold value;

a fourth step of generating a gain signal based on said difference between said absolute value and said predetermined threshold value;

a fifth step of generating intermediate state of envelopes with a first attack time and a first release time in response to changes in level of said gain signal to impart said intermediate state of envelopes to said gain signal;

a sixth step of modifying said intermediate state of envelopes into final state of envelopes with a second attack time and a second release time in response to changes in level of said gain signal outputted in said fifth step to impart said final state of envelopes to said gain signal;

a seventh step of multiplying said audio signal by said gain signal with said

final state of envelopes; and

an eighth step of outputting said audio signal multiplied by said gain signal; and

a ninth step of receiving a desired release coefficient to distribute a first release coefficient and a second release coefficient, said first release coefficient corresponding to said first releasing time, said second release coefficient corresponding to said second releasing time, wherein

said first attack time is equal to zero,

said second attack time is equal corresponds to a desired attack time coefficient, and

the sum of said first release time coefficient to be distributed and said second release time coefficient to be distributed is equal to said desired release time coefficient.

9. (Currently amended)   A recordable medium having stored thereon information on an audio expansion program having a computer perform an expansion of an audio signal, said audio expansion program comprising:

a first step of having an audio signal inputted;

a second step of periodically sampling said audio signal to obtain an absolute value in level of said audio signal;

a third step of acquiring a difference between said absolute value and a predetermined threshold value;

a fourth step of generating a gain signal based on said difference between said absolute value and said predetermined threshold value;

a fifth step of generating intermediate state of envelopes with a first attack time and a first release time in response to changes in level of said gain signal to impart said intermediate state of envelopes to said gain signal;

a sixth step of modifying said intermediate state of envelopes into final state of envelopes with a second attack time and a second release time in response to changes in level of said gain signal outputted in said fifth step to impart said final state of envelopes to said gain signal;

a seventh step of multiplying said audio signal by said gain signal with said final state of envelopes; and

an eighth step of outputting said audio signal multiplied by said gain signal; and

a ninth step of receiving a desired release coefficient to distribute a first

release coefficient and a second release coefficient, said first release coefficient corresponding to said first releasing time, said second release coefficient corresponding to said second releasing time, wherein

said first attack time is equal to zero,

said second attack time ~~is equal~~ corresponds to a desired attack ~~time~~ coefficient, and

the sum of said first release ~~time~~ coefficient to be distributed and said second release ~~time~~ coefficient to be distributed is equal to said desired release ~~time~~ coefficient.